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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,842	01/21/2004	Wang Yueh	ITL.1058US (P17800)	3057
21906	7590	02/18/2005	EXAMINER	
TROP PRUNER & HU, PC 8554 KATY FREEWAY SUITE 100 HOUSTON, TX 77024			LEE, SIN J	
			ART UNIT	PAPER NUMBER
			1752	

DATE MAILED: 02/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/761,842	YUEH ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sin J. Lee	1752	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 December 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 and 11-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 11-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. Applicants canceled claims 6-10 and 17.
2. In view of the amendment of December 6, 2004, previous 102(b) rejection on claims 1-3, 6-9, and 11-16 over Aoi et al'098 is hereby withdrawn since Aoi does not teach present anions of claims 1 and 11.
3. In view of the newly cited prior arts, the following rejections are made *non-final*.

#### ***Claim Rejections - 35 USC § 112***

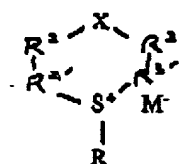
4. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 depends from claim 6, which is a canceled claim.

#### ***Claim Rejections - 35 USC § 102***

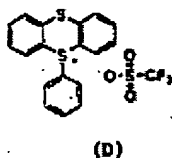
5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. Claims 1-5, 11-14, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Roger et al (JP 10-39500, its JPO English abstract, and its full English translation).

In claim 12 (see the English translation), Roger teaches a photoresist composition containing photoactive components of the following formula:



(IV)

wherein each  $R^2$  and  $R^{2'}$  are members of a first fused *aryl ring*; each  $R^3$  and  $R^{3'}$  are members of a second fused *aryl ring*; each X is a heteroatom, a  $C_{1-3}$  alkylene, or a hetero-substituted  $C_{1-3}$  alkylene, and M is a counter anion. As one of the specific example for the compound of the general formula (IV), Roger teaches (see pg.12, last paragraph – pg.13, first paragraph of English translation) the following compound:



(D)

(in this compound, each  $R^2$  and  $R^{2'}$  of the general formula (IV) shown above would be members of a first fused *phenyl ring*, and each  $R^3$  and  $R^{3'}$  would be members of a second fused *phenyl ring*). Therefore, Roger teaches present inventions of claims 1-3 and 11-14 (the compound shown above contains present perfluoroalkyl sulfonate as the anion).

With respect to present claims 4 and 5, Roger teaches the equivalence of the phenyl group and naphthyl group as aryl groups (see pg.10, third paragraph of English translation). Therefore, one of ordinary skill in the art would immediately envisage each  $R^2$  and  $R^{2'}$  of the general formula (IV) to be members of a first fused *naphthyl ring*

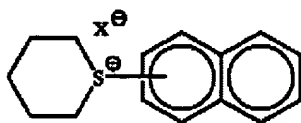
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(instead of phenyl ring) and each  $R^3$  and  $R^{3'}$  to be members of a second fused *naphthyl ring* (instead of phenyl ring). Therefore, the prior art teaches present inventions of claims 4 and 5.

With respect to present claim 16, Roger teaches (see pg.12, second paragraph of the English translation) that the  $R^2$ ,  $R^{2'}$ ,  $R^3$ , and  $R^{3'}$  of the general formula (IV) can be substituted with halogen, alkyl, alkoxy, alkenyl, aryl, or substituted aryl. Therefore, it is the Examiner's position that one of ordinary skill in the art would immediately envisage Roger's compound (D) shown above, in which the fused phenyl groups are substituted with alkyl groups. Therefore, the prior art teaches present invention of claim 16.

7. Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Cameron et al (US 2003/0134227 A1).

Cameron teaches (see [0003] and [0009]) cyclic sulfonium and sulfoxonium photoacid generator compounds and photoresist composition that comprises such compounds. As one of the examples for the photoacid generator compound, Cameron discloses the following compound (see pg.8, structure 35):



wherein  $X^-$  represents  $R'SO_3$  where  $R'$  is *perfluoroalkyl* having 1- 12 carbon atoms such as triflate (see [0040], [0041]). Therefore, Cameron's photoacid generator shown above contains *present perfluoroalkyl sulfonate as its anion*.

Therefore, Cameron teaches present inventions of claims 1, 2, 4, and 5.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sin J. Lee whose telephone number is 571-272-1333. The examiner can normally be reached on Monday-Friday from 9:00 am EST to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*S. J. Lee*

S. Lee  
February 17, 2005

*Sin J. Lee*  
Sin J. Lee  
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